Test Items for EPV Processing:

Note: The below numbers correspond to the numbers on the following TOPEX EPV Automation Acceptance Test forms.

1)   Verify that the following items and values are properly generated in the EPV and STATE directories:
EPV1 epoch and Cartesian elements
EPV2 epoch and Cartesian elements
EPV3 epoch and Cartesian elements
EPV4 epoch and Cartesian elements

2)   Verify:
PVNML short namelist generation
Verify the following items are properly generated and listed:
ITIM/IEQX,
IC,
MASS,
TEND,
SCD,
MA1K
MA1D
MA1F
MA1T
Flux data

3)   Verify:
PVNML long namelist generation
Verify the following items are properly generated and listed:
Maneuver blocks (# of blocks)
ITIM/IEQX,
TEND,
IC,
Flux data

4)   Verify that Files are generated in OK directory
        Verify:
        OK_41WxxxH.OMMxx
        OK_47WxxxH.OMMxx
        OK_150WxxxH.OMMxx
        OK_171WxxxH.OMMxx
        OK_174WxxxH.OMMxx
        OK_TPXxxxH.OMMxx
        FDF files
        ELT files
        LONG files
        Gin files
        UN files
        UFO files
        TPX files

5)   Verify that Files are generated in EPH directory
        Verify:
        TDRS and TOPEX ephemeredes are generated

6)   Verify that Files are generated in OOEPH directory
        Verify:
        ELT file (definitive and predictive files)
        PLOT files
        Quick files
        SHORT files
        LONGX file (definitive and predictive files)
        ELEMENT_MASTER.ROTV file

TOPEX Automation Acceptance Test

Test: EPV generation – Monday	Test Version: 1.0A
Subsystem:	Date: 4/22/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct with the following exception:
   - TEND is a month from the current date while manual runs for TOPEX are 15 days long (this affects all other short run tests as well, though will not be noted for each).
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
   - OK files do not print first set of compares at zero time past first epoch
   - DAY/H:M:S AFTER 1ST EPV in OK file is not calculated correctly, though this does not seem to affect anything else
   - ELT files do not list input definitions
   - LONG files do not list anything
   - UN files do not exist
   - UFO files do not list input file definitions
   - UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
   - TPX files do not list input file definitions
   - TPX files contain different integration blocks and summary information (this could be due to different end dates)

5) All files were generated

6) All files exist and values are correct with the following exception:

- **ELEMENTS_MASTER.ROTV file is updated with all four vectors instead of just the first**

TOPEX Automation Acceptance Test

Test: EPV generation – Wednesday	Test Version: 1.0A
Subsystem:	Date: 4/24/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:

1) All files exist and values are correct with the following exception:
- **TDRS 171W EPV wrong due to switch not being updated before the run (this is true for all other tests as well, though will not be noted for each). This has been corrected.**

2) Short namelist exists and values are correct with the following exception:
- **TEND is a month from the current date while manual runs for TOPEX are 15 days from current day and manual runs for TDRS are one month from yesterday (this affects all other short run tests as well, though will not be noted for each).**

3) Long namelist exists and values seem correct for given inputs (note the following exception):
- **Wrong Anomalous force was used since input file was not updated before the run (this affects all other long run tests as well, though will not be noted for each). This has been corrected.**

4) Most files exist and values are correct with the following exceptions:
- **OK files do not print first set of compares at zero time past first epoch**
- **DAY/H:M:S AFTER 1ST EPV in OK file is not calculated correctly, though this does not seem to affect anything else**
- **ELT files do not list input definitions**

- **LONG files do not list anything**
- **UN files do not exist**
- **UFO files do not list input file definitions**
- **UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else**
- **TPX files do not list input file definitions**
- **TPX files contain different integration blocks and summary information (this could be due to different end dates)**

5) **All files were generated**
6) **All files exist and values are correct with the following exceptions:**
   - **SHORT file values are not exactly those manually produced**
   - **LONGX file values are not exactly those manually produced**
   - **ELEMENTS_MASTER.ROTV file is updated with all four vectors instead of just the first**

TOPEX Automation Acceptance Test

Test: EPV generation – Friday	Test Version: 1.0A
Subsystem:	Date: 4/26/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct with the following exception:
  - TEND is a month from the current date while manual runs for TOPEX are 15 days long (this affects all other short run tests as well, though will not be noted for each).
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
  - ELT files do not list input definitions
  - LONG files do not list anything
  - UN files do not exist
  - UFO files do not list input file definitions
  - UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
  - TPX files do not list input file definitions
  - TPX files contain different integration blocks and summary information (this could be due to different end dates)
5) All files were generated
6) All files exist and values are correct

TOPEX Automation Acceptance Test

Test: EPV generation – Monday	Test Version: 1.0A
Subsystem:	Date: 4/29/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct with the following exception:
- **TEND is a month from the current date while manual runs for TOPEX are 15 days long (this affects all other short run tests as well, though will not be noted for each).**

3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
- **ELT files do not list input definitions**
- **LONG files do not list anything**
- **UN files do not exist**
- **UFO files do not list input file definitions**
- **UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else**
- **TPX files do not list input file definitions**
- **TPX short run file contains different integration blocks and summary information (this could be due to different end dates)**

5) All files were generated
6) All files exist and values are correct

TOPEX Automation Acceptance Test

Test: EPV generation – Tuesday	Test Version: 1.0A
Subsystem:	Date: 4/30/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) EPV files exist and values are correct. State files exist, but values are not correct:
  - **The wrong timing and polar motion file was used (this affects all other run files, though will not be noted for each)**
2) Short namelist exists and values are correct with the following exception:
  - **TEND is a month from the current date while manual runs for TOPEX are 15 days long (this affects all other short run tests as well, though will not be noted for each).**
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
  - **ELT files do not list input definitions**
  - **LONG files do not list anything**
  - **UN files do not exist**
  - **UFO files do not list input file definitions**
  - **UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else**
  - **TPX files do not list input file definitions**
  - **TPX files contain different integration blocks and summary information (this could be due to different end dates and timing and polar motion file)**
5) All files were generated

6) All files exist, but values are not correct (probably due to timing and polar motion).

TOPEX Automation Acceptance Test

Test: EPV generation – Thursday	Test Version: 1.0A
Subsystem:	Date: 5/2/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:

1) All files exist and values are correct.

2) Short namelist exists and values are correct with the following exception:

- TEND is a month from the current date while manual runs for TOPEX are 15 days long (this affects all other short run tests as well, though will not be noted for each).

3) Long namelist exists and values are correct.

4) Most files exist and values are correct with the following exceptions:

- ELT files do not list input definitions
- LONG files do not list anything
- UN files do not exist
- UFO files do not list input file definitions
- UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
- TPX files do not list input file definitions
- TPX short run file contains different integration blocks and summary information (this could be due to different end dates)

5) All files were generated

6) All files exist and values are correct

TOPEX Automation Acceptance Test

Test: EPV generation – Friday	Test Version: 1.0A
Subsystem:	Date: 5/3/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct.
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
   - ELT files do not list input definitions
   - LONG files do not list anything
   - UN files do not exist
   - UFO files do not list input file definitions
   - UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
   - TPX files do not list input file definitions
5) All files were generated
6) All files exist and values are correct with the following exceptions:
   - SHORT and QUICK files for the short run do not contain anything
   -

TOPEX Automation Acceptance Test

Test: EPV generation – Monday, Operational	Test Version: 1.0A
Subsystem:	Date: 5/6/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct.
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
- ELT files do not list input definitions
- LONG files do not list anything
- UN files do not exist
- UFO files do not list input file definitions
- UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
- TPX files do not list input file definitions
5) All files were generated
6) All files exist and values are correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Monday, Constrained	Test Version: 1.0A
Subsystem:	Date: 5/6/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct with the following exceptions:
- **ROTV files should be called R26X_TPX…**
- **Wrong gin file/gravity field was used so orbital elements in ROTV files are not correct (this affects all other runs, though will not be mentioned for each)**

2) Short namelist exists and values are correct with the following exception:
- **TEND should be the next day rather than 15 days**

3) Long namelist exists, see following exception:
- **Long namelist and propagated run is not normally created for CONS, therefore there is nothing to compare it to (this is true for all propagated runs, though will not be mentioned for each)**

4) Most files exist and values are correct with the following exceptions:
- **OK file comparisons are not correct, probably because of the wrong gravity field**
- **ELT files do not list input definitions**
- **LONG files do not list anything**
- **UN files do not exist**
- **UFO file is not normally created for CONS**
- **TPX files do not list input file definitions**
- **TPX files integration steps & termination epochs are not correct, probably because of wrong gravity field**

5) All files were generated
6) All files exist, but values are not correct, probably because of the wrong gravity field

TOPEX Automation Acceptance Test

Test: EPV generation – Tuesday, Operational	Test Version: 1.0A
Subsystem:	Date: 5/7/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) EPV files exist and values are correct. STATE files do not exist.
2) Short namelist does not exist.
3) Long namelist exists and values are correct, though the date reads 7-MAY rather than 07-MAY which could be causing problems.
4) Most files do not exist:
   - OK file does not exist
   - ELT files do not exist
   - LONG files do not exist
   - UN files do not exist
   - Short run TPX file does not exist

Of the files that do exist, values are correct with the following exceptions:
   - UFO files do not list input file definitions
   - UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
   - Long run TPX file does not list input file definitions
   - Long run TPX file integration steps are wrong and indicate process ended without finishing

5) Short run file was not generated. Long run file was generated.
6) No files exist.

TOPEX Automation Acceptance Test

Test: EPV generation – Tuesday, Constrained	Test Version: 1.0A
Subsystem:	Date: 5/7/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct with the following exceptions:
- **Wrong MAXL and MAXM values (gravity field) are specified in ROTV files**
- **Mean orbital elements in ROTV files are not correct**

2) Short namelist exists and values are correct.

3) Long namelist does not exist, as is normal for CONS (this is true for all propagated runs, though will not be mentioned for each)

4) All necessary files exist and values are correct with the following exceptions:
- **ELT files do not list input definitions**
- **LONG files do not list anything**
- **TPX files do not list input file definitions**

5) All files were generated

6) All files exist and values are correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Wednesday, Constrained	Test Version: 1.0A
Subsystem:	Date: 5/8/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct with the following exceptions:
 • **Wrong MAXL and MAXM values (gravity field) are specified in ROTV files**
 • **Mean orbital elements in ROTV files are not correct**
 2) Short namelist exists and values are correct with the following exceptions:
 • **TEND is one day early**
 • **MA1F (tau+1) value is not correct**
 3) Long namelist does not exist, as is normal for CONS (this is true for all propagated runs, though will not be mentioned for each)
4) All necessary files exist and values are correct with the following exceptions:
   • **ELT files do not list input definitions**
   • **LONG files do not list anything**
   • **TPX files do not list input file definitions**
5) All files were generated
6) All necessary files exist, but values are not correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Thursday	Test Version: 1.0A
Subsystem:	Date: 5/9/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct with the following exception:
- **MA1F (tau+1) value is wrong (this affects all product values, but will not be listed for each)**
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following (and above) exceptions:
- **OK file for TDRS 8 still describes it as 150W, though this does not affect anything else**
- **ELT files do not list input definitions**
- **LONG files do not list anything**
- **GIN file shows wrong VMA table is being used**
- **UN files do not exist**
- **UFO files do not list input file definitions**
- **UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else**
- **TPX files do not list input file definitions**
- **TPX files contain different integration blocks and summary information**
5) All files were generated.
6) All files exist, but no values are correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Friday	Test Version: 1.0A
Subsystem:	Date: 5/10/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) EPV files for TOPEX exist and values are correct. No files were created for TDRS (this is true for all other categories, though will not be noted for each). STATE files do not exist.
2) Short namelist does not exist.
3) Long namelist exists and values are correct with the following exception:
- **There is no date for TEND**

4) Most files do not exist:
- **OK file does not exist**
- **ELT files do not exist**
- **LONG files do not exist**
- **GIN file does not exist**
- **UN file does not exist**
- **TPX short run file does not exist**

Of the files that do exist, the values are correct with the following exceptions:
- **UFO files do not list input file definitions**
- **UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else**
- **TPX long run file does not list input file definitions**
- **TPX long run file does not contain integration blocks and summary information**

5) No files were generated.
6) No files exist.

TOPEX Automation Acceptance Test

Test: EPV generation – Monday	Test Version: 1.0A
Subsystem:	Date: 5/13/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct.
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
- ELT files do not list input definitions
- LONG files do not list anything
- UN files do not exist
- UFO files do not list input file definitions
- UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
- TPX files do not list input file definitions
5) All files were generated.
6) All files exist and values are correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Tuesday	Test Version: 1.0A
Subsystem:	Date: 5/14/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct.
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
   - ELT files do not list input definitions
   - LONG files do not list anything
   - UN files do not exist
   - UFO files do not list input file definitions
   - UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
   - TPX files do not list input file definitions
5) All files were generated.
6) All files exist and values are correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Wednesday (TOPEX & TDRS)	Test Version: 1.0A
Subsystem:	Date: 5/15/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct.
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
- ELT files do not list input definitions
- LONG files do not list anything
- UN files do not exist
- UFO files do not list input file definitions
- UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
- TPX & TDRS files do not list input file definitions

5) All files were generated.
6) All files exist and values are correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Thursday (full arc)	Test Version: 1.0A
Subsystem:	Date: 5/16/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct.
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
   - ELT files do not list input definitions, though this is covered in QA report
   - LONG files do not list anything, though inputs are covered in QA report and longitudes can be found in LONGX.COM
   - UN files do not exist
   - UFO files do not list input file definitions, though this is covered in QA report
   - UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
   - TPX files do not list input file definitions, though this is covered in QA report
5) All files were generated.
6) All files exist and values are correct.

TOPEX Automation Acceptance Test

Test: EPV generation – Friday (full arc)	Test Version: 1.0A
Subsystem:	Date: 5/17/2002
Tester: Sara Schoenbaechler	

Test Status:

Test Passes ?	Test Fails ?	Work around exists ?	Cosmetic Error ?

Test Description:
1) All files exist and values are correct.
2) Short namelist exists and values are correct.
3) Long namelist exists and values are correct.
4) Most files exist and values are correct with the following exceptions:
- ELT files do not list input definitions, though this is covered in QA report
- LONG files do not list anything, though inputs are covered in QA report and longitudes can be found in LONGX.COM
- UN files do not exist
- UFO files do not list input file definitions, though this is covered in QA report
- UFO file includes an error "invalid specification of character value for EPOCH", though this does not seem to affect anything else
- TPX files do not list input file definitions, though this is covered in QA report

5) All files were generated.
6) All files exist and values are correct with the following exception:
- Rev number in LONGX and SHORT files for short run is one off